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- (b) Insecure footing or insecure staging; or
- (c) Atop equipment not suitable for drilling.

§57.7053 Moving hand-held drills.

Before hand-held drills are moved from one working area to another, air shall be turned off and bled from the hose

\$57.7054 Starting or moving drill equipment.

Drill operators shall not start or move drilling equipment unless all miners are in the clear.

§ 57.7055 Intersecting holes.

Holes shall not be drilled where there is a danger of intersecting a misfired hole or a hole containing explosives, blasting agents, or detonators.

[56 FR 46517, Sept. 12, 1991; 56 FR 52193, Oct. 18, 1991]

§57.7056 Collaring in bootlegs.

Holes shall not be collared in bootlegs.

[56 FR 46517, Sept. 12, 1991]

ROTARY JET PIERCING—SURFACE ONLY

§57.7801 Jet drills.

Jet piercing drills shall be provided with:

(a) A system to pressurize the equipment operator's cab, when a cab is provided; and

(b) A protective cover over the oxygen flow indicator.

§57.7802 Oxygen hose lines.

Safety chains or other suitable locking devices shall be provided across connections to and between high pressure oxygen hose lines of 1-inch inside diameter or larger.

§57.7803 Lighting the burner.

A suitable means of protection shall be provided for the employee when lighting the burner.

§ 57.7804 Refueling.

When rotary jet piercing equipment requires refueling at locations other than fueling stations, a system for fueling without spillage shall be provided.

§ 57.7805 Smoking and open flames.

Persons shall not smoke and open flames shall not be used in the vicinity of the oxygen storage and supply lines. Signs warning against smoking and open flames shall be posted in these areas.

§57.7806 Oxygen intake coupling.

The oxygen intake coupling on jet piercing drills shall be constructed so that only the oxygen hose can be coupled to it.

§ 57.7807 Flushing the combustion chamber.

The combustion chamber of a jet drill stem which has been sitting unoperated in a drill hole shall be flushed with a suitable solvent after the stem is pulled up.

Subpart G—Ventilation

SURFACE AND UNDERGROUND

§ 57.8518 Main and booster fans.

(a) All mine main and booster fans installed and used to ventilate the active workings of the mine shall be operated continuously while persons are underground in the active workings. However, this provision is not applicable during scheduled production-cycle shutdowns or planned or scheduled fan maintenance or fan adjustments where air quality is maintained in compliance with the applicable standards of subpart D of this part and all persons underground in the affected areas are advised in advance of such scheduled or planned fan shutdowns, maintenance, or adjustments.

(b) In the event of main or booster fan failure due to a malfunction, accident, power failure, or other such unplanned or unscheduled event:

(1) The air quality in the affected active workings shall be tested at least within 2-hours of the discovery of the fan failure, and at least every 4-hours thereafter by a competent person for compliance with the requirements of the applicable standards of subpart D of this part until normal ventilation is restored, or

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(2) All persons, except those working on the fan, shall be withdrawn, the ventilation shall be restored to normal and the air quality in the affected active workings shall be tested by a competent person to assure that the air quality meets the requirements of the standards in subpart D of this part, before any other persons are permitted to enter the affected active workings.

§ 57.8519 Underground main fan controls.

All underground main fans shall have controls placed at a suitable protected location remote from the fan and preferably on the surface.

UNDERGROUND ONLY

$\S 57.8520$ Ventilation plan.

A plan of the mine ventilation system shall be set out by the operator in written form. Revisions of the system shall be noted and updated at least annually. The ventilation plan or revisions thereto shall be submitted to the District Manager for review and comments upon his written request. The plan shall, where applicable, contain the following:

- (a) The mine name.
- (b) The current mine map or schematic or series of mine maps or schematics of an appropriate scale, not greater than five hundred feet to the inch, showing:
- (1) Direction and quantity of principal air flows;
- (2) Locations of seals used to isolate abandoned workings;
- (3) Locations of areas withdrawn from the ventilation system;
- (4) Locations of all main, booster and auxiliary fans not shown in paragraph (d) of this standard.
- (5) Locations of air regulators and stoppings and ventilation doors not shown in paragraph (d) of this standard;
- (6) Locations of overcasts, undercasts and other airway crossover devices not shown in paragraph (d) of this standard:
- (7) Locations of known oil or gas wells;
- (8) Locations of known underground mine openings adjacent to the mine;

- (9) Locations of permanent underground shops, diesel fuel storage depots, oil fuel storage depots, hoist rooms, compressors, battery charging stations and explosive storage facilities. Permanent facilities are those intended to exist for one year or more; and
- (10) Significant changes in the ventilation system projected for one year.
- (c) Mine fan data for all active main and booster fans including manufacturer's name, type, size, fan speed, blade setting, approximate pressure at present operating point, and motor brake horsepower rating.
- (d) Diagrams, descriptions or sketches showing how ventilation is accomplished in each typical type of working place including the approximate quantity of air provided, and typical size and type of auxiliary fans used.
- (e) The number and type of internal combustion engine units used underground, including make and model of unit, type of engine, make and model of engine, brake horsepower rating of engine, and approval number.

[50 FR 4082, Jan. 29, 1985, as amended at 60 FR 33723, June 29, 1995]

§ 57.8525 Main fan maintenance.

Main fans shall be maintained according to either the manufacturer's recommendations or a written periodic schedule adopted by the operator which shall be available at the operation on request of the Secretary or his authorized representative.

[50 FR 4082, Jan. 29, 1985, as amended at 60 FR 33723, June 29, 1995]

§ 57.8527 Oxygen-deficiency testing.

Flame safety lamps or other suitable devices shall be used to test for acute oxygen deficiency.

§ 57.8528 Unventilated areas.

Unventilated areas shall be sealed, or barricaded and posted against entry.

§ 57.8529 Auxiliary fan systems

When auxiliary fan systems are used, such systems shall minimize recirculation and be maintained to provide ventilation air that effectively sweeps the working places.